

ABSTRACT  
HYBRID VANE ISLAND DIFFUSER

A gas turbine engine diffuser comprises a bowl-shaped diffuser casing and a cover nested into the bowl-shaped diffuser casing and cooperating therewith in defining a diffuser passage having a channeled entry portion in fluid flow communication with a vaned exit portion via a vaneless intermediate portion. The channeled entry portion is divided into an array of inlet flowpaths by a first set of vanes. Likewise, the vaned exit portion is divided into an array of outlet flowpaths by a second set of vanes.